

REMARKS

The courteous telephone interview extended to the undersigned on January 28, 2009 is acknowledged with appreciation. The substance of the interview is incorporated into the following traversal of the rejections.

The status identifier of claim 9 has been corrected but no other claim change is being made.

Claims 1, 5-7, 10, 15 and 20-22 were rejected under 35 USC § 102 over Mulvaney. This rejection is respectfully traversed.

Claims 1 and 20-22 relate to a process in which a polymerizable group—containing silane coupling agent is absorbed onto the surfaces of silica-coated metal particles, and a polymeric resin coating is formed on the surfaces of by polymerizing a composition comprising a polymerizable monomer. As pointed out during the interview, the structure of the resulting product is metal particles-silica-silane coupling agent-resin.

Mulvaney teaches a process in which a mixture of nanoparticles, coating composition and ligand is prepared, and the coating and ligand are deposited on the particles (column 2, lines 28-49). As shown in Figure 1, and as pointed out during the interview, the structure of the resulting product is particle-silane coupling agent-silica. Note that the second functional group of the ligand is silane, rather than silica as indicated in the Office Action. There is no silica disposed between the particle core and the coupling agent.

The reference contains no teaching or suggestion of a process in which a coupling agent is first absorbed on the surface of a silica-coated metal and thereafter a

resin coating is formed by polymerizing a polymerizable monomer. While there is a reference to possible multiple coatings, that refers to the entity connected to the particles by the coupling agent (resulting in, for example, a particle-coupling agent-coating-coating structure) and does not suggest interposing anything between the particles and the coupling agent. Mulvaney's particles do not have a silica coating. The process claims are neither anticipated nor rendered obvious by this reference.

The other rejected claims relate the particle having a metal core, a silica layer covering the surface of the core, and a polymerized resin layer covering the silica layer. As noted above, Mulvaney teaches a particle, which may or may not be a metal, coupled by the ligand to a coating layer which may be the same material as the core or be an insulating, semiconducting and/or metallic coating. Silica may be used as the coating, and there may be multiple coating layers. However, there is no disclosure or suggestion of a silica coated metallic core where the silica is connected by a coupling agent to a polymerized resin layer. These claims are also neither anticipated nor rendered obvious by this reference.

Claim 2 was rejected under 36 USC § 103 over Mulvaney in view of Nakawaza, and claims 9, 11-14 and 16 were rejected under 36 USC § 103 over Mulvaney in view of Nakatsuka, Hakata and Mizuno. Both of these rejections are respectfully traversed.

Mulvaney has been discussed above. None of the Nakawaza, Nakatsuka, Hakata and Mizuno references were cited to overcome the deficiencies in the primary reference, and in fact, they do not. Nakawaza was cited only to show rapid cooling. Nakatsuka teaches in [0013], a multilayer-coated powder (metal [0015] or polymer [0016]) in which at least one layer is a metal hydroxide or a metal oxide, and in which another

layer may be silica, as shown in the titania-coated silica-coated iron powder of Example 1, but does not disclose a polymer-coated silica-coated metal core. Hakata was cited to show developers comprise toner and carriers, and Mizuno to show a particular particle size. None of these references teach or suggest connecting a resin (of any type) to a silica-coated metal by means of a coupling agent. Since these secondary references do not cure the basis deficiencies of Mulvaney, no further discussion is warranted. The combinations do not render the claimed invention obvious.

In view of the foregoing, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

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